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Considerations for Research Design

for the Farm and Home Unit Approach in Extension

The need for research in this area:

The farm and home unit approach has been used in some States for years and is being initiated in others, the current assumption being that this is the most efficient approach to maximizing satisfactions of farm families. Although the assumption is supported by observation and other subjective evidence, it has not been adequately tested by rigorous research to obtain objective factual data about its results as compared to other approaches in Extension.

There are important variations in the policies, philosophies and procedures from State to State that make it difficult to generalize about the effectiveness of this approach in extension. Nationwide emphasis on the farm and home unit approach make it exceedingly important that indisputable facts be obtained about its efficiency in bringing about changes on the farms and in the homes. The research design proposed here is intended to obtain conclusive answers that can be the basis of administrative decisions and reporting to legislative bodies on the accomplishments.

Steps to follow in developing the research project

1. Define the farm and home unit approach.

It is important that a clear statement of the overall purposes be prepared to aid in focusing the research effort on the specific people to be involved and changes that are expected as a result of using this approach. Differences from State to State on such things as the kinds of families to be involved, and whether emphasis will be on giving direct help only to participating families or spreading the influence to others in the community, determine the kind of information needed and the sources from which to obtain it. The preparation of such a statement is the responsibility of extension administration or those to whom responsibility for farm and home development policy and philosophy have been delegated.

If a definitive statement that is acceptable to the extension staff has not been made, then this should be done at the outset. The important thing is what is meant by this approach regardless of name. Such a statement should state the basic philosophy and goals of the approach and specify such things as the people to be worked with, how the work is to be carried on and identify the general content or subject matter areas to be included.

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2. Prepare a clear statement of the objectives.

Appraisal of any educational effort must be made in terms of its objectives. In the farm and home unit approach, it must be in terms of the kinds of changes that the participating families are expected to make. This statement of objectives not only guides the extension staff, but also indicates the kinds of information that are needed as evidence of accomplishment.

The statement of objectives should clearly indicate the kinds of changes that the people are expected to make if the objectives are to be attained. To be most useful in suggesting the kinds of information to be obtained for the benchmark and final appraisal, the statement of objectives need be defined in terms of interests, understandings, skills, practices, and attitudes. Objectives defined in this manner lend themselves to both benchmark and final measurement because they can be analyzed into tangible evidences of accomplishment. An objective should be worded to tell three things, namely, the persons involved, the behavior expected and the content involved. These questions will be found useful for judging extension objectives:

1. Can the objective be defined in terms of behavior or changes in people?
 2. Will the objective lead toward general aims of Extension?
 3. Will the objective lead to constantly higher levels of achievement?
 4. Is the objective achievable -- by the level of maturity of the group and permitted by available resources?
 5. Can the objective be evaluated -- is it measurable -- can evidence of actual progress of individuals be secured?
 6. Is the objective specific -- concrete?
 7. Is the objective clear and definite in statement, or by description, and stated in sufficient detail to serve as a basis for teaching?
 8. Was the objective cooperatively determined -- agreed upon by everyone concerned?
3. Select items about which to obtain information for the benchmark and final appraisal.

The statements of objectives include tangible as well as intangible end-products. Attention has most often been paid to how fully some tangible end-products are achieved, items or results that can be measured quantitatively, such as changes in family income, changes in livestock inventory, additions to the household inventory, etc. These tangible evidences are important but attention need also be given to some things that are difficult to evaluate. It is important to know how people feel, their attitudes, their value patterns and goals, and what decision-making and management skill they possess.

Select representative items about which you can collect measurable data but also include items that will identify changes in people. Both kinds of items or data are needed in evaluating the farm and home unit approach in extension.

4. Establish a comparison group.

It is essential to have a comparison group if the purpose is to compare the farm and home unit approach with other approaches. By obtaining information from a group of families that are participating and from another group that are not participating, it is possible to reduce to a minimum the influence of the other approaches. This requires that both before and after information be obtained from the families in both groups.

A comparison group should be selected, using the identical criteria that were used in selecting the participating families. The number of comparison families should be selected to allow for farm business failure, removal of families, and other changes that would make it necessary to drop certain families from the comparison group. For example, if there are to be as few as 10 families in the county who will participate in the farm and home unit approach, then a group of 15 to 20 other families should be selected for the comparison group. If as many as 50 families per county are to participate, then the comparison group of 15 to 20 for any one county could be selected as suggested above with groups from enough different counties to provide a satisfactory sample for the whole State. The size of the sample is determined by the criteria used and how carefully they are applied in selecting families for both groups. If criteria are used that keep to a minimum the differences among families, possibly a few hundred carefully selected comparison families might suffice for a State example. The criteria should be designed to keep within a limited range the differences in such factors as size of farm, type of farming, productivity of the soils, size of the family, age group, and income group.

If both groups are large enough, it may be possible to pair families. In pairing families a family from the comparison group would be selected to match as nearly as possible each family in the participating group. Then the two groups could be compared to find out about any differences in progress.

Geographic location of the comparison group is a factor to be considered. This is particularly important if the participating families are to be used to spread to nonparticipating families the benefits of the farm and home unit approach. Families in the comparison group should be selected in areas outside the neighborhoods or communities of the participating families to separate them as much as possible from the influence of participating families. This method of establishing a comparison group makes it necessary to take into account the similarities and differences among communities and neighborhoods in the counties so that families in both groups can be selected from comparable communities or neighborhoods.

5. Collect the benchmark information.

Much evaluation effort is frustrated because there is no known starting point from which change can be measured. Benchmark information should be obtained at any time any new effort is initiated so that it will be possible to measure the total effects at a later time. Benchmark information should contain status information about the kinds of practices, skills and information that are implied by the objectives. This calls for decisions in advance about the kinds of information that will be needed when appraisal is made at a later time. Both the benchmark and the appraisal information must deal with identical content. It may be necessary in the beginning to select a list of key or critical items to be included in both benchmark and appraisal information because it likely will not be practical to deal with all of the possible outcomes in relation to all of the objectives.

In the States where it is a part of regular procedure to obtain a rather complete financial and farm and home inventory, little change or addition may be needed to establish the benchmark for participating families and the comparison group of nonparticipating families to measure some of the objectives. Where this procedure is not followed, special arrangements will be required to plan and to prepare the farms on which to record this benchmark data. Financial, and farm and home inventories yield evidence pertinent to only a part of the objectives of the farm and home unit approach. There are many additional objectives to be included in a benchmark study and techniques and devices for measuring these will need be developed. Identical information should be obtained from both groups of families using the same methods to obtain it. Likewise, when the time arrives for the appraisal of final achievement, the same kinds of information will be needed as was contained in the benchmark and again it must be obtained from identical families in both groups.

Collection of the information probably best can be done by the specialists or county personnel who are concerned with the farm and home unit approach. The usual procedure calls for visiting the participating families to obtain information about the farm, home and family. Similar visits to both the participating and selected nonparticipating families would be a good means of obtaining benchmark information.

6. Make the final achievement appraisal.

This step in the procedure may consist of one effort after 3 to 5 years have elapsed or it may occur annually covering only a part of the objectives each year with the main appraisal effort coming after several partial evaluations. The latter plan allows for timing the appraisal effort to coincide with estimated time requirements for bringing about the changes called for in the objectives and can provide data for reporting progress annually. In addition, it can provide indication of progress that is helpful in conducting the work.

Obviously the final appraisal must also be based on objectives and must attempt to measure changes for the same items as were included in the benchmark information.

7. Analyze and interpret the findings.

Some of the tangible evidence of changes may not require a great deal of interpretation because it will consist of comparing the kinds of numbers of changes made by participating families with those made by the nonparticipating families in the control groups. However, change in family income will need to be analyzed carefully. Change in cash income, net worth and value of farm and home improvements, taken alone, may not be valid indicators. A method of depreciating the cost of farm and home improvements over the productive or useful life as it relates to income for family living is needed. Likewise, income should be estimated on a stable commodity price base and the net worth statement should be figured by a method that eliminates change due to fluctuating price levels. Basically, the true measure of change in income must be in terms of more or less real income available for family living. There are many changes other than income, all of which will need be carefully analyzed and interpreted.



